STATEMENT OF THOMAS RIPP, PRESIDENT, SECURITY AND DETECTION SYSTEMS DIVISION, L-3 COMMUNICATIONS, INC., BEFORE THE HOUSE SUBCOMMITTEE ON AVIATION, CONCERNING AIRLINE PASSENGER BAGGAGE SCREENING. JUNE 29, 2006

Mr. Chairman and Members of the Committee,

I am Tom Ripp, President of L-3 Communications' Security and Detection Systems Division. I am pleased to have the opportunity to appear before you to discuss the opportunities which lie before us to strengthen security for the American traveling public. Before describing the actions we believe can and should be taken, I would like to briefly discuss the genesis of L-3 Communications, and our involvement in the security field.

Background on L-3 and EDS

L-3 Communications, Inc., was formed in 1997 as a spinoff of Lockheed-Martin and, through a series of strategic acquisitions and product development, has quickly become a leader in supplying products which support our nation's defense. In the civil aviation arena, L-3 produces and sells products ranging from TCAS, which is an airborne collision avoidance system, to digital flight data recorders, commonly referred to as black boxes. Our security division has been involved in aviation security since the company's inception and successfully developed the eXaminer3DX6000, an explosive detection system (EDS) based on computer tomography that was certified by the FAA in 1998. It was the first, and remains the only, EDS to give operators 3-D images of the entire checked bag contents. Since that time, we have continued to refine and upgrade our system. Detection capabilities have been enhanced without negative impact to operational throughput or false alarm rates and continued reliability improvements have resulted in

system availability of 99% for in-line systems and 98% for stand-alone systems. In addition, L-3 was the first to develop a full multiplex network capability that provides for a central screening operation, which allows for optimum utilization of the screener workforce. Today, more than 650 L-3 EDS units are found at airports throughout the U.S. with approximately 500 as stand-alone units and the remaining units deployed as in-line configurations. The L-3 system provides its greatest efficiency in the in-line configuration and was the first in the U.S. to be integrated into such a system after 9/11 at Boston's Logan International airport.

With airport traffic increasing, we believe it critical that any approach we take from this point on remain focused on increasing the probability of detection tightly coupled with increased operational efficiency and a reduced overall cost to deploy. If we continue to deploy technology without focusing on operational efficiency, the long term cost to support our nation's aviation security infrastructure will become a burden which we will not be able to afford. Also, the increasing rate of passenger traffic translates into evermore congested terminal space, longer screening lines and increased frustration levels. The traveling public expects, and deserves, an efficient process which enables a safe a secure transit to their destination. The approaches we recommend that you consider are therefore focused on the deployment of effective detection technology and the reduction of overall costs to deploy and operate. In aggregate, we are confident that, if adopted, they will generate significant cost-savings, speed up screening, increase detection capabilities, and free-up airport terminal space that will become increasingly crowded as passenger levels continue to grow.

EDS Procurement and Refurbishment

Explosive Detection Systems were first introduced at our nation's airports about a decade ago, and a considerable effort was made to increase the numbers following the events of 9/11. Many of these systems are beginning to age. The ability to refurbish this equipment and extend the life of current assets cost effectively for continued utilization is recommended. These systems, once redeployed, would provide for further reduction in dependencies on labor intensive Explosive Trace Detectors as well as address continued capacity growth at smaller airports. Therefore, we recommend the following actions be undertaken: First, refurbish existing EDS with software and hardware modifications to improve their detection, throughput speed, and reliability, and second, acquire additional, new certified EDS systems for in-line installations at additional airports. There are considerable benefits that can be achieved by following these recommendations.

First, the refurbishment of existing EDS can be done at approximately ½ the cost of acquiring new systems. Refurbished systems can then be redeployed, at lesser cost, to medium and smaller airports, which, while seeing increased passenger traffic, currently depend on trace detection. Trace detection systems are slower than EDS and have less detection capabilities, are labor-intensive, and therefore costly to operate. As noted by the GAO, replacing trace detection equipment with EDS units will increase security, increase passenger throughput, and reduce considerably the number of screeners required. Second, once currently deployed EDS systems are refurbished, we will be able to offer extended warranty coverage or reduced maintenance costs. Again this will reduce the TSA's overall cost to deploy . Third, it is widely acknowledged that in-line EDS configurations are far preferable to stand-alone systems at the larger airports from

perspectives of space, efficiency, and improved detection.

We believe it is critical that TSA and the Congress direct considerably more funding towards the acquisition and installation of new EDS units which, when supplemented by less costly, refurbished EDS units, can help address the considerable gap that exists in installing in-line configurations at 100 of the nation's larger airports. Experience shows that, in light of cost-savings achieved, installation of an in-line EDS system literally pays for itself in less than two years. Both the TSA and the GAO have reported that in-line baggage screening could reduce the dependence on TSA screeners by 50 to 78 percent. The sooner in-line EDS are implemented, the sooner the TSA can begin to save significant annual recurring screener related costs.

Next Generation Systems

The currently deployed EDS systems, when installed in the in-line configuration, are effective and efficient. Operating at rates of 600 to 650 bags per hour with greatly reduced screener headcount, these systems provide an effective security solution. They simply need to be more widely deployed. We believe they should also serve as the building block for the deployment of alternate detection technologies which, when combined with current technology, greatly enhance detection and further improve operational performance. We are recommending a system approach, deploying several technologies, evaluating the input from those technologies and then rendering a detection decision. Very simply, the decisions taken based on a whole system will be far more valuable and efficient than the sum of the parts.

For the most part, current "next generation" development programs are focused on the introduction of higher throughput machines which provide improved detection and lower false alarm rates. These new, larger machines will have a limited deployment roadmap as most of the larger airports will already have existing equipment and their cost will prohibit deployment at smaller airports.

Our recommended approach is to focus more funding on the development of alternate, orthogonal technologies, which will be far cheaper to develop and far cheaper to deploy while enabling dramatically increased detection and lower false alarms allowing for further reductions in TSA screener costs. The current platform provides the foundation for the solution and through the addition of currently available software upgrades and the addition of orthogonal technologies the solutions can be "customized" to address each unique requirement through a systems engineering approach. This approach addresses both the need for operational efficiency as well as the continued need for enhanced detection capabilities. The key is to improve overall security within the air travel network by deploying more systems now. We have the ability to cost-effectively improve the operation of existing equipment via software upgrades at far less cost than it would be to reconfigure airports to next gen systems, and we can outpace current development efforts with the inclusion of alternate technologies for dramatically improved detection.

We know the threat landscape continues to change. Deployed machines must be made more flexible to meet future challenges and the most cost-effective way to accomplish that is to include alternate detection capability within the existing technology platform.

This type of solution provides the flexibility required to address each of these needs as well as provide a path for future growth as the projections for air travel continue to increase.

Focus on Detection and Efficiency

The current approach to screening passengers and carry-on baggage at the nation's checkpoints is an excellent example of the problems created when operational efficiency is not a critical factor in development efforts. The current process has significant inefficiencies, is labor-intensive, and has relatively constrained detection capabilities. In addition, the present methodology of deploying individual technologies as they emerge continues to reduce the overall operational efficiency of checkpoints that oftentimes proves a source of frustration to the traveling public just as they commence their trips. By taking a systems engineering approach to the checkpoint, L-3 is creating a solution which incorporates multiple technologies for screening and detection of threats and explosives for both the passengers and their carry-on baggage. The information utilized from each of the technologies, when fused, provides a far superior detection capability that is cost effective and efficient. The advanced screening checkpoint would serve as a platform for additional sensors (including biometrics) as technologies mature. We envision that the checkpoint would combine automated carry-on baggage screening, automated trace detection, metal detection, and automated people screening that would identify concealed threats and explosives carried by a passenger. It would also improve operational efficiency by increasing throughput to an estimated 300+ passengers per hour, eliminate the need for removal of most personal items from carry-on baggage, eliminate the need for separate shoe scanning technology, provide a universally fast and

efficient screening process for all passengers, and dramatically reduce TSA checkpoint operator staffing requirements by up to 40%. This advanced checkpoint, currently in development by L-3, would screen both people and baggage and is targeted to cost little more in total than the carry-on baggage screening machines currently under development.

Summary

In summary, we believe that the recommendations stated herein focus on the cost-effective deployment of technology sufficient to protect our nation's air passengers. We will enhance security by the wider deployment of existing technology, and the wider deployment of enhanced alternate technologies, which more cost-effectively allow for wider deployment as they become available. Building on the currently deployed platforms will also permit the TSA to more effectively control the overall costs to screen our nation's checked baggage.

I appreciate having the opportunity to share our views with the Subcommittee and look forward to working with you to help identify ways to improve the security of the American traveling public. I would be pleased to respond to any questions you may have at this time.